Year	R&D Expenditure (Rs. in Lakhs)
1997-98	486.49
1998-99	471 62
1999-00	539.63
2000-01	564.17
2001-02	694 52

(c) Under additional modernization activity, the company has entered into technical collaborations with Moscow State Institute of Steel and Alloys (MISA) for undertaking development work relating to preparation of Nano Crystalline powder from Blue Dust. Nano Crystalline Material is considered as material for future. NMDC has a procedure for periodical replacements of obsolete equipment and up-gradation of the facilities, so that R&D centre remains a leader, in the competitive world globally.

(d) The objective of the collaborative work is development of value added products from Blue Dust, to create more avenues for utilization and consumption of Blue Dust at its Bailadaila Mines (High Purity Iron Ore Fines are generally called Blue Dust) On 22nd March, 2003 NMDC has signed a MOU with MISA, for technical collaboration for undertaking development work relating to preparation of Nano Crystalline powder from Blue Dust.

Cost of Alumina Produced by NALCO

348. SHRI RAMACHANDRA KHUNITA: Will the Minister of MINES be pleased to state:

(a) whether it is a fact that the cost of alumina produced by NALCO is the lowest in the world,

(b) if so, the details thereof; and

(c) how many mines have been given to NALCO and their total deposit of bauxite alongwith its quality?

THE MINISTER OF STATE IN THE MINISTRY OF MINES (SHRI RAMESH BAIS): (a) and (b) The cost of calcined alumina produced by

NALCO is quite low. In the absence of authentic reported data of other companies in the world, comparative position is not known.

(c) NALCO has one leased Mine at Panchpatmali situated at Damanjodi, District Koraput, Orissa, with present mineable reserve estimated at 190 million tonnes of high grade bauxite.

Installed Capacity of NALCO Refineries, Smelter and Power Plant

349. SHRI RAMACHANDRA KHUNITA: Will the Minister of MINES be pleased to state:

(a) what is installed capacity of NALCO Refineries, NALCO Smelter and NALCO Power Plant; and

(b) what is the year-wise range of production and profit from the year 1995 to 2003 of NALCO Refineries, NALCO Smelter and NALCO Power Plant?

THE MINISTER OF STATE IN THE MINISTRY OF MINES (SHRI RAMESH BAIS): (a) The installed capacities of NALCO's Alumina Refinery, Aluminium Smelter and Captive Power Plant are as follows:-

Plants	Installed Capacity	Capacity after Expansion
Alumina Refinery	8,00,000 Tonnes Per Year (TPY) *w.e.f* Sept. 1986	15,75,000 TPY *w.e.f* December, 2001
Aluminium Smelter	2,18,000 TPY *w.e.f* March, 1987	2,87,500 TPY *w.e.f* March, 2003
Capative Power Plant	600 MW *w.e.f* Sept., 1986	840 MW *w.e.f.* January, 2003

(b) NALCO does not prepare profit/loss account for different plants because these plants are integrated and depend upon each other. The range of production of NALCO's Refinery, Smelter and Captive Power Plant and its profit from the year 1995 to 2003 are as under:-